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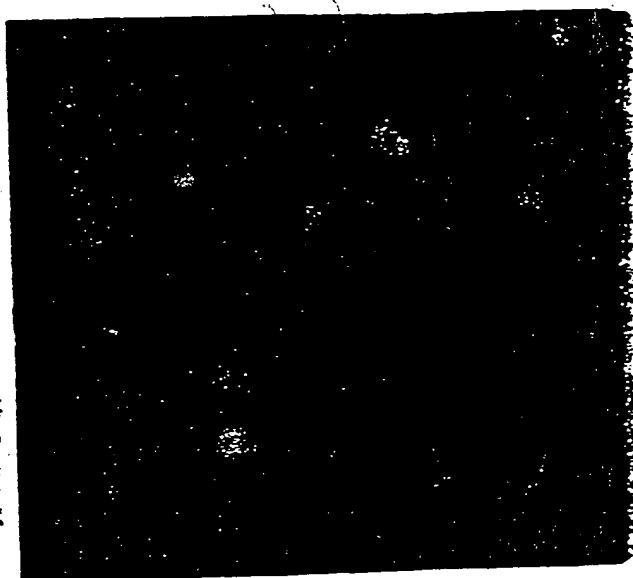
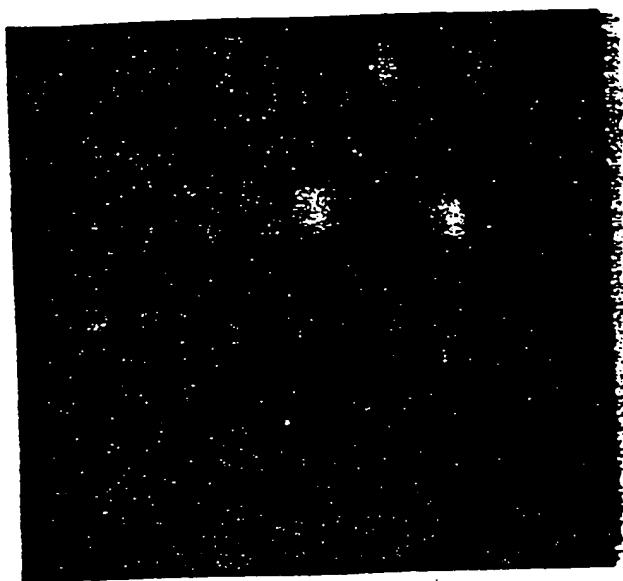
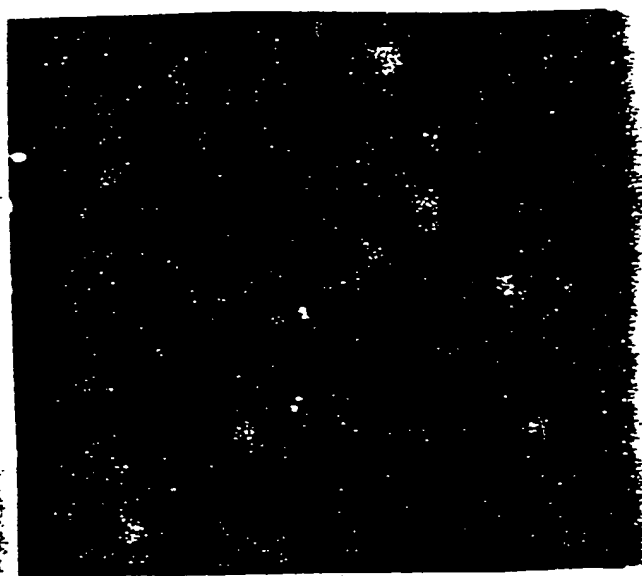
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Figure 1



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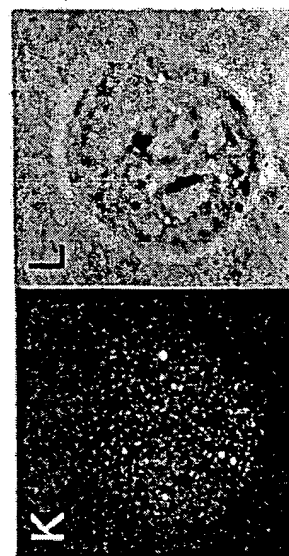
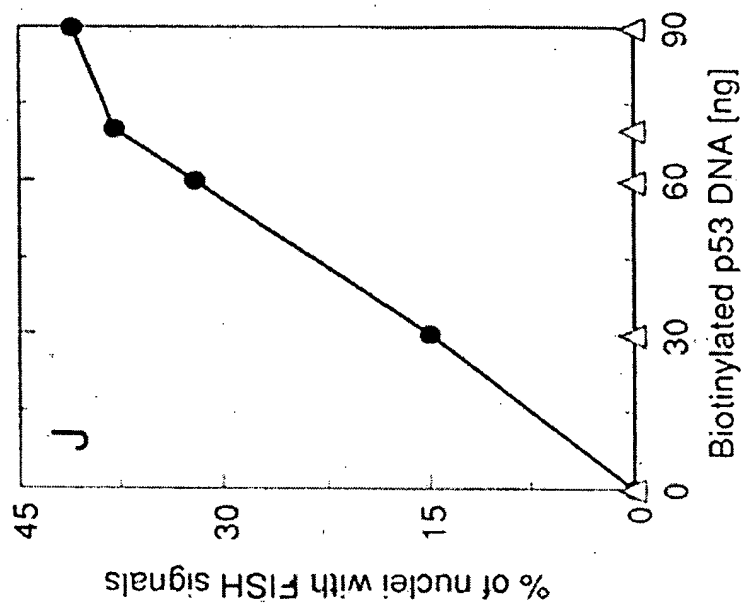
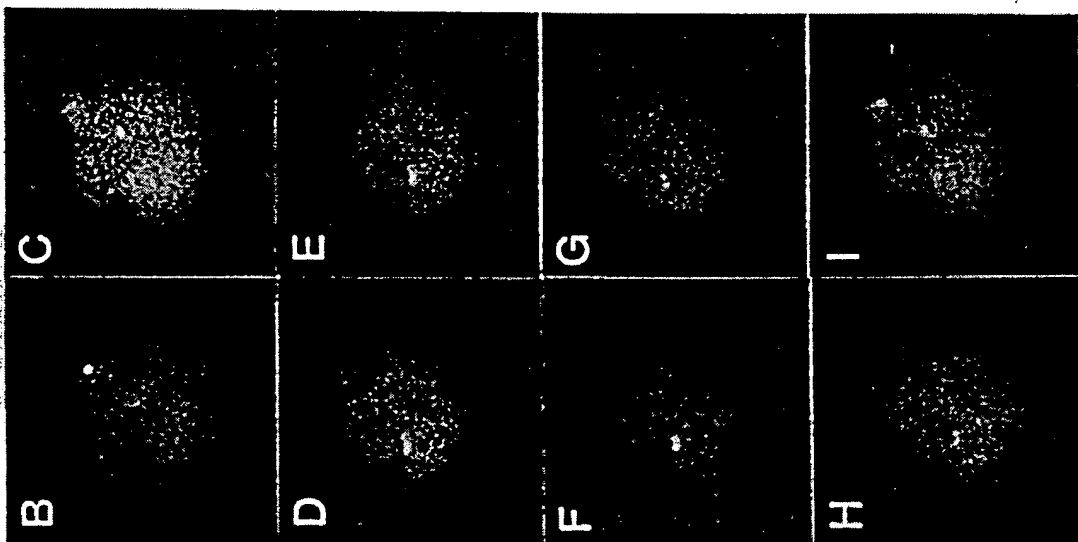
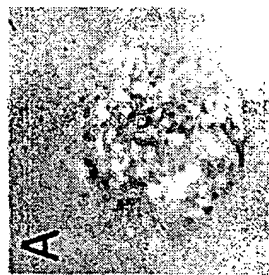


Figure 2

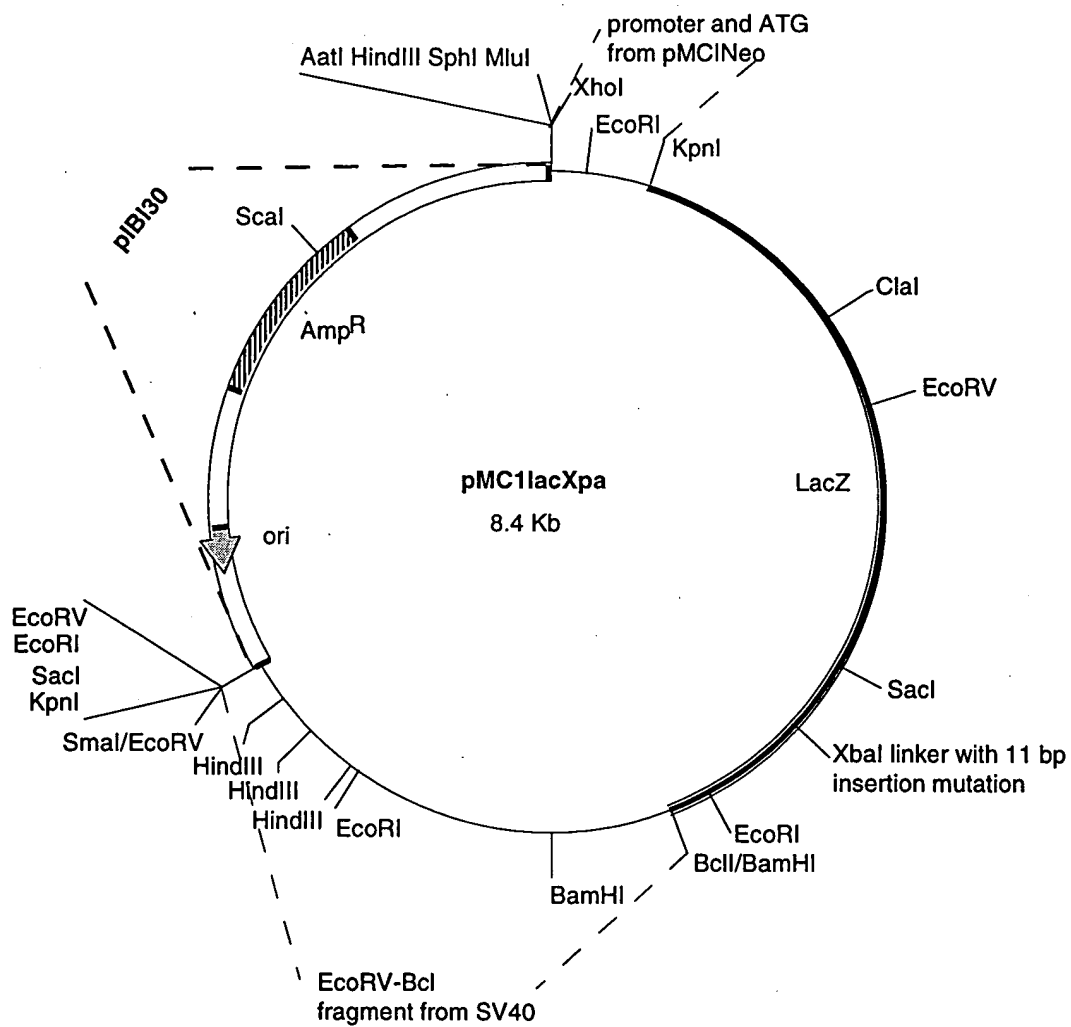


FIGURE 3

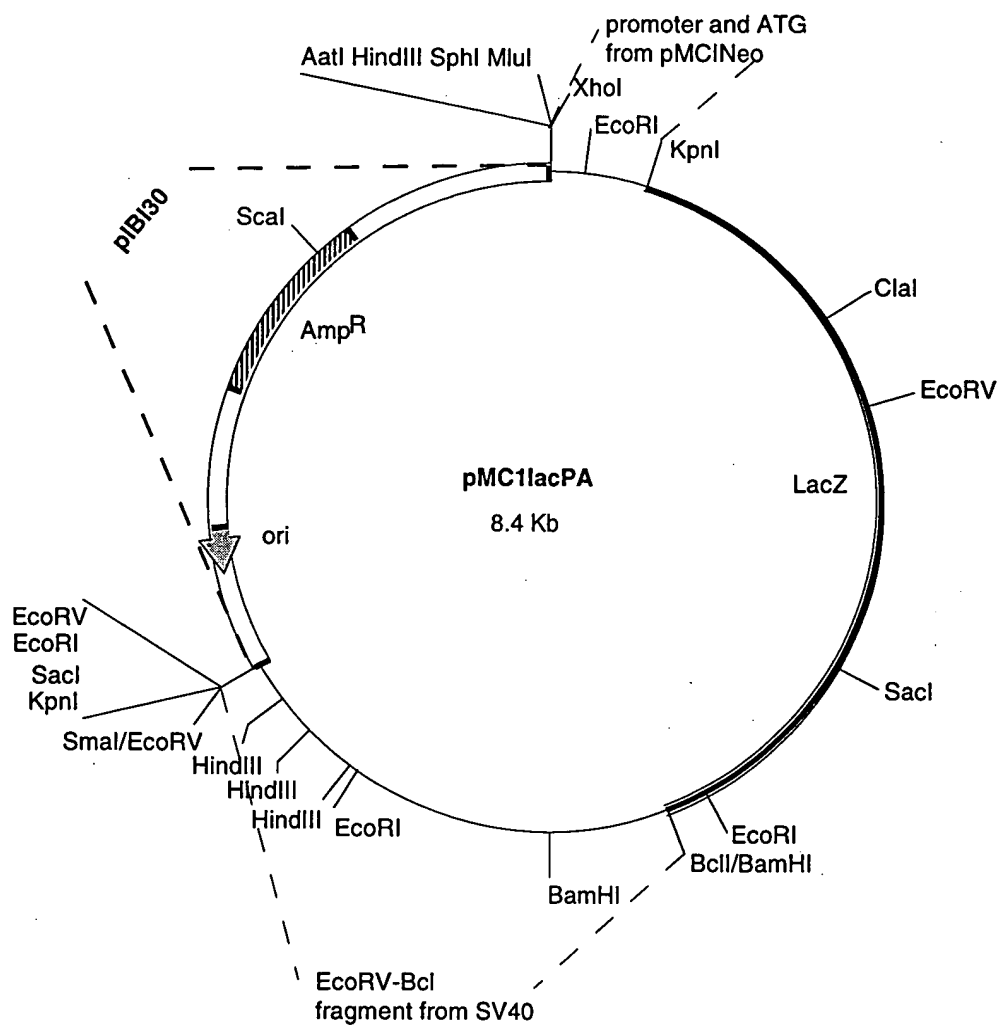


FIGURE 4

Figure 5

3610 3620 3630 3640 3650 3660
ATAAAAAACAACCTGCTGACGCCGCTGCGCGATCAGTTCACCCGTGCACCGCTGGATAACG

3670 3680 3690 3700 3710 3720
ACATTGGCGTAAGTGAAGCGACCCGCATTGACCCTAACGCCTGGGTCGAACGCTGGAAGG

PCR α

3730 3740 3750 3760 3770 3780
CGGCGGGCCATTACCAGGCCGAAGCAGCGTTGTTGCAGTGCACGGCAGATACTTGTCTG

CTCTAGACGCG Xba Linker with
11bp insertion

3790 3800 3810 3820 3830 3840
ATGCGGTGCTGATTACGACCGCTCACGCGTGGCAGCATCAGGGGAAAACCTTATTTATCA

3850 3860 3870 3880 3890 3900
GCCGGAACCTACCGGATTGATGGTAGTGGTCAAATGGCGATTACCGTTGATGTTGAAG

PCR β

3910 3920 3930 3940 3950 3960
TGGCGAGCGATACACCGCATCCGGCGCGGATTGGCCTGAACTGCCAGCTGGCGCAGGTAG

3970 3980 3990 4000 4010 4020
CAGAGCGGGTAAACTGGCTCGGATTAGGGCCGCAAGAAAACCTATCCCGACCGCCTTACTG

CCCTAGACGCG

**TEST FOR ALTERATION OF AN INSERTION MUTATION IN THE lacZ
(β -GALACTOSIDASE) GENE OF EUKARYOTIC EXPRESSION VECTOR**

Experimental Sample	Injected Plasmid, 276-mer DNA and RecA Protein		Number of Injected Surviving Cells	Number of Surviving Cells Scoring Blue	Surviving Cells Scoring Blue (%)
1	pSV- β -gal	-276-mer - RecA	168	21	12.5
2	pMC1lacpa	- 276-mer - RecA	98	9	9.2
3	pMC1lacXpa	- 276-mer - RecA	173	0	0
4	pMC1lacXpa	+ 276-mer - RecA	103	0	0
5	pMC1lacXpa	+ 276-mer + RecA	168	6	3.6

Figure 6

	1	2	3
M			

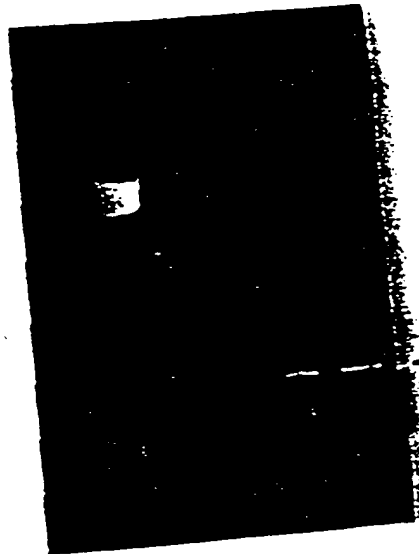


Figure 2A

Control (Σ CF)
 Σ CF Microinjected
 Σ CF P-L

Figure 7B



A dark, grainy image of a document page. A large black arrow points from the right towards the left, with the number "300" printed to its left. The background is dark and textured, possibly representing a scanned document or a photograph of a document.

Figure 8A

1 2 3 4 5



Figure 8B

FOOTPRINT

299

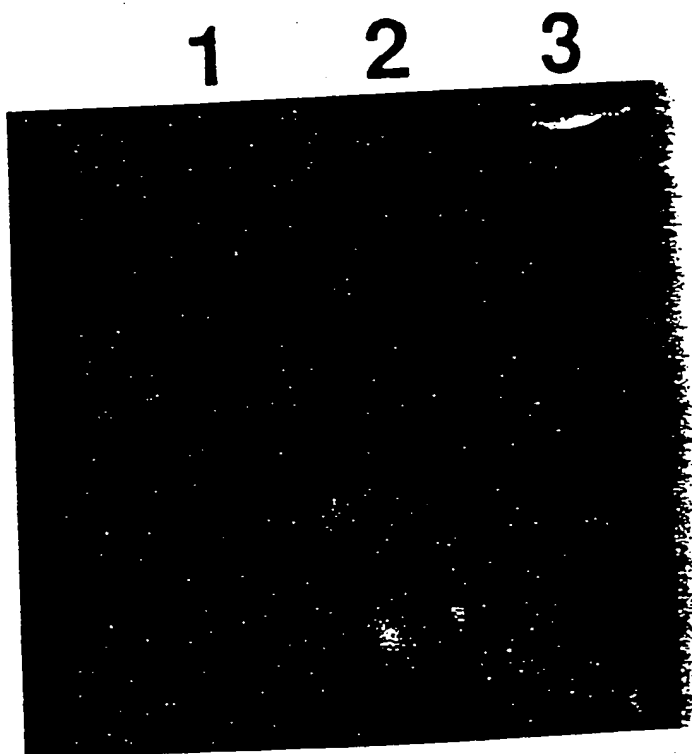


Figure 9

Scheme for recombination assay

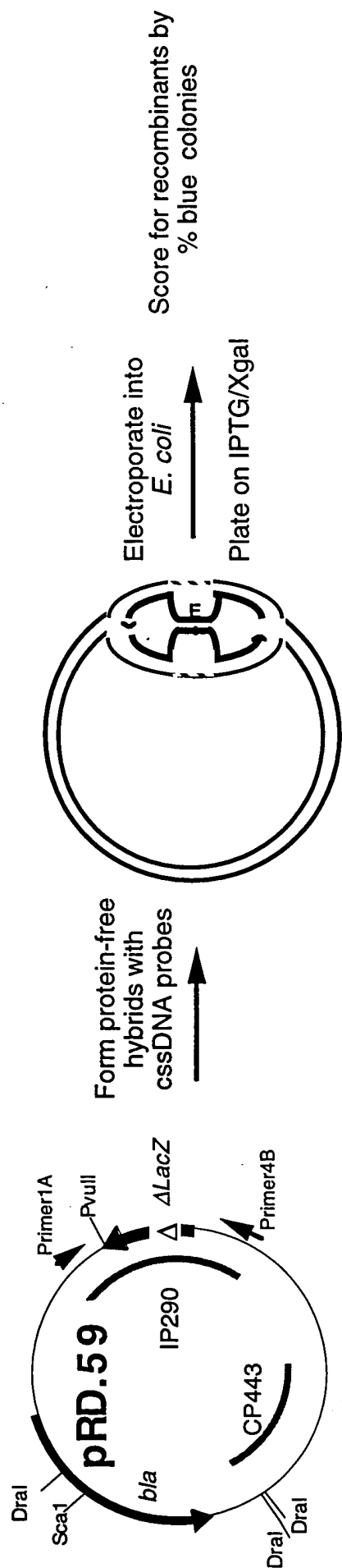


Figure 10

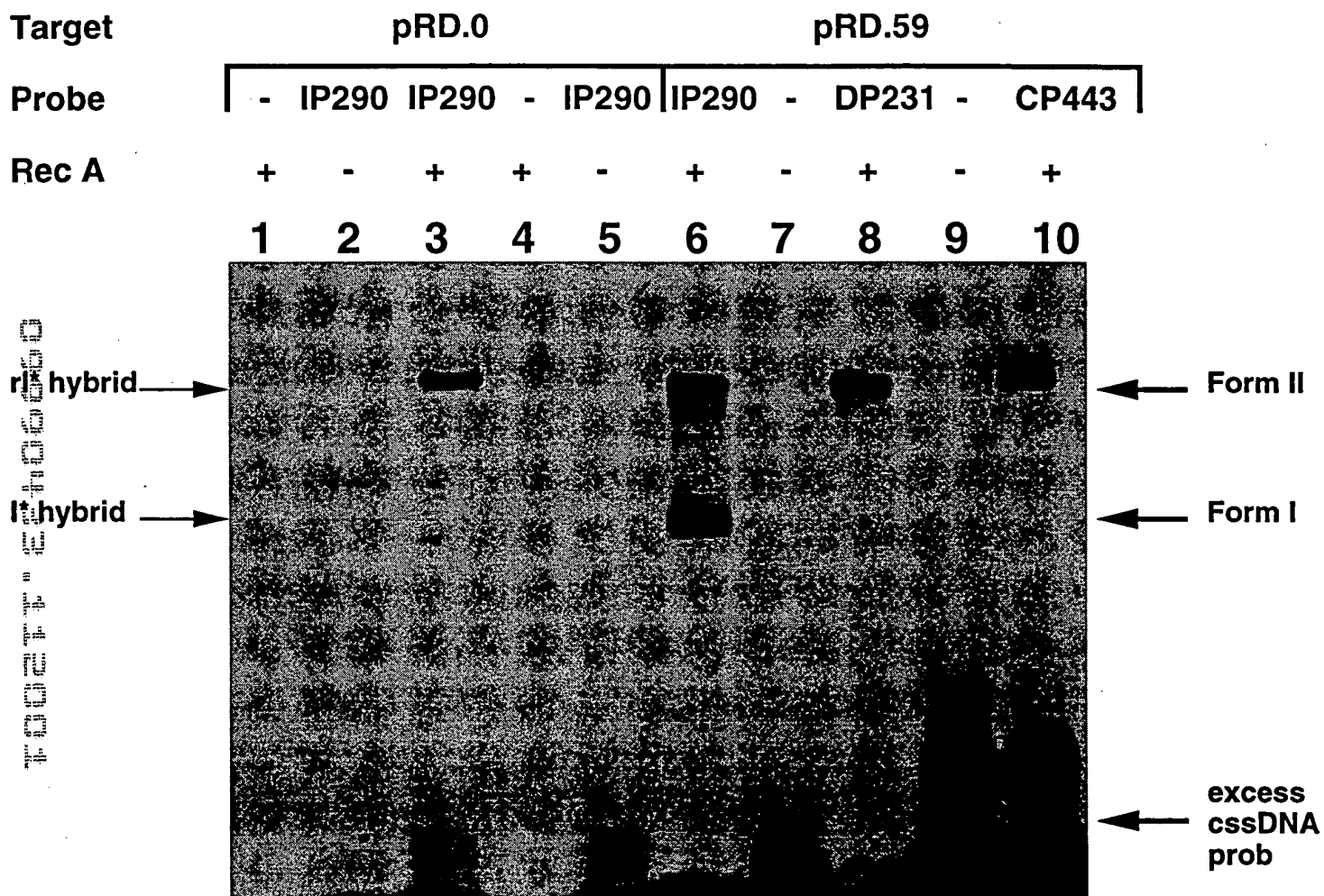


FIGURE 11

cssDNA Probe:Target Hybrids Enhance Homologous Recombination

Target Probe	RecA coating	Host	%Recombinant / total colonies
pRD.59	-	RecA+	0
pRD.59	+	RecA-	0
pRD.59 IP290	-	RecA+	0
pRD.59 IP290	-	RecA-	0
pRD.59 IP290	+	RecA+	3
pRD.59 IP290	+	RecA-	0
pRD.59 DP290	-	RecA+	0
pRD.59 DP290	-	RecA-	0
pRD.59 DP290	+	RecA+	0
pRD.59 DP290	+	RecA-	0
pRD.59 CP443	-	RecA+	0
pRD.59 CP443	-	RecA-	0
pRD.59 CP443	+	RecA+	0
pRD.59 CP443	+	RecA-	0

Figure 12

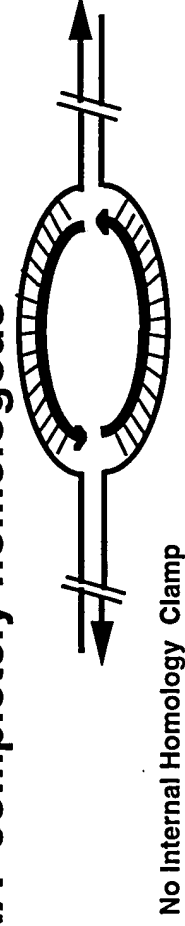
Four-strand hybrids

All DNA probe and target strands are paired

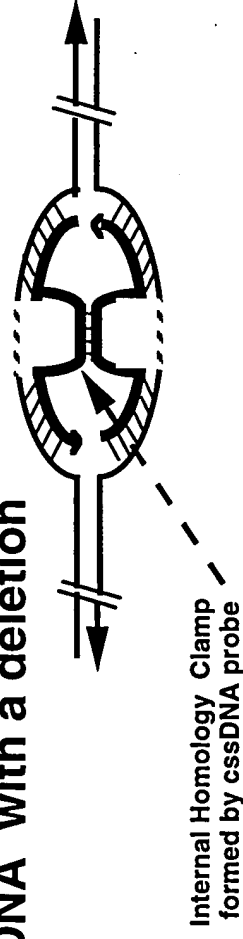
Three-strand hybrids

Certain regions of DNA probe or target strands are unpaired

A. Target DNA completely homologous



B. Target DNA with a deletion



C. Target DNA with an insertion

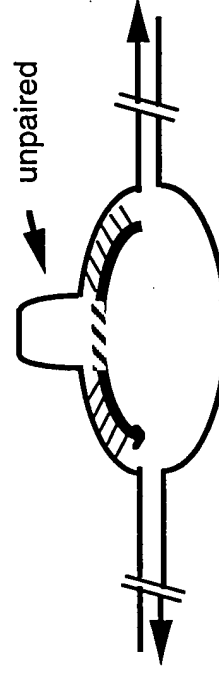
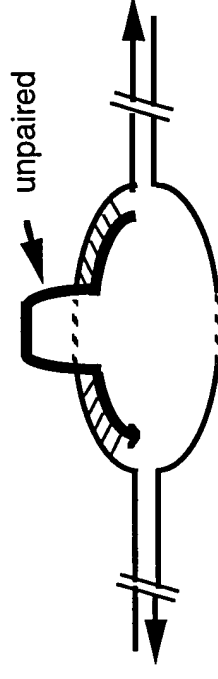
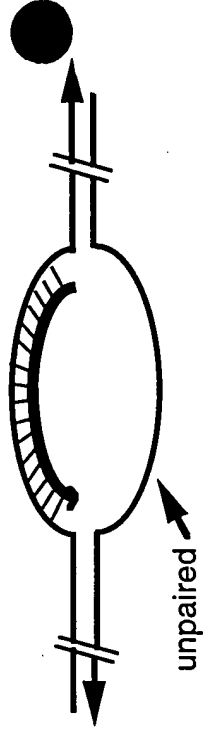
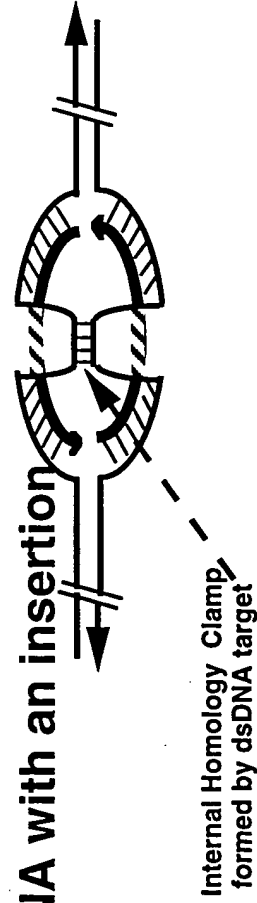


Figure 13

Figure 14A

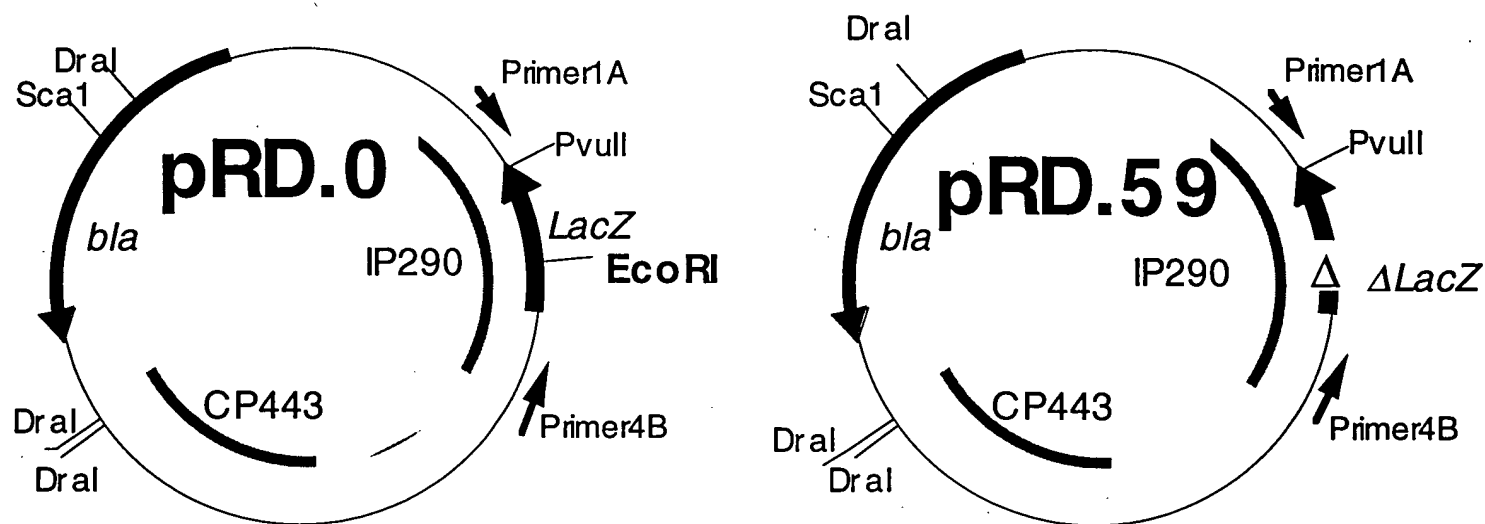
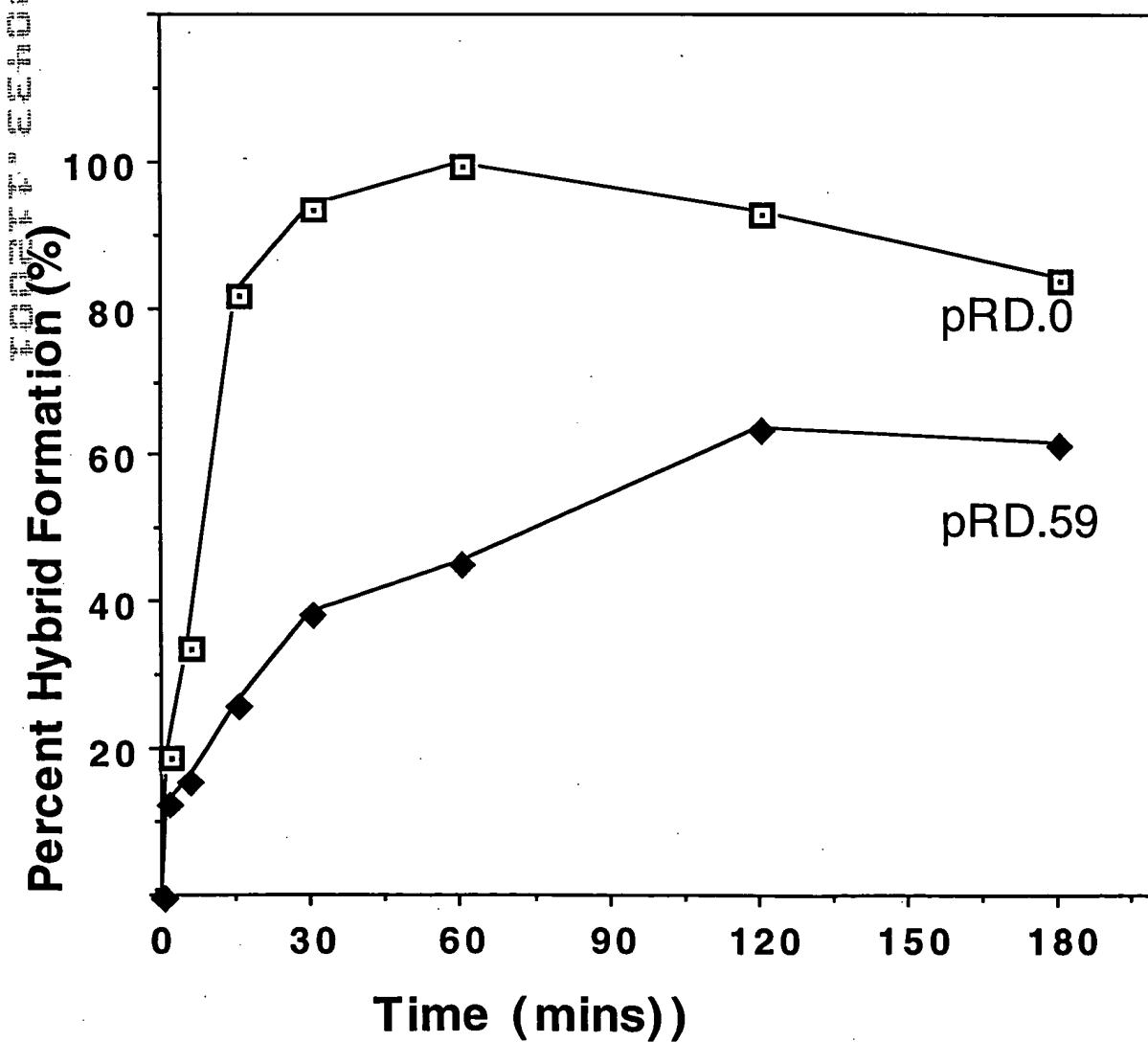


Figure 14B



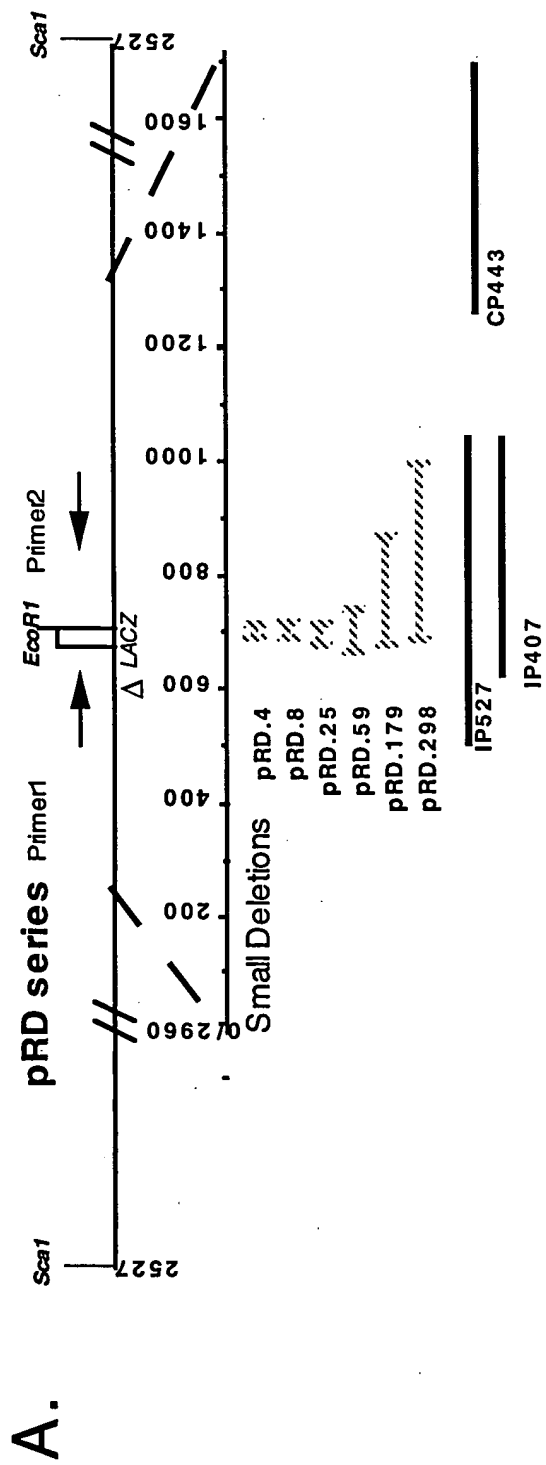


Figure 15A

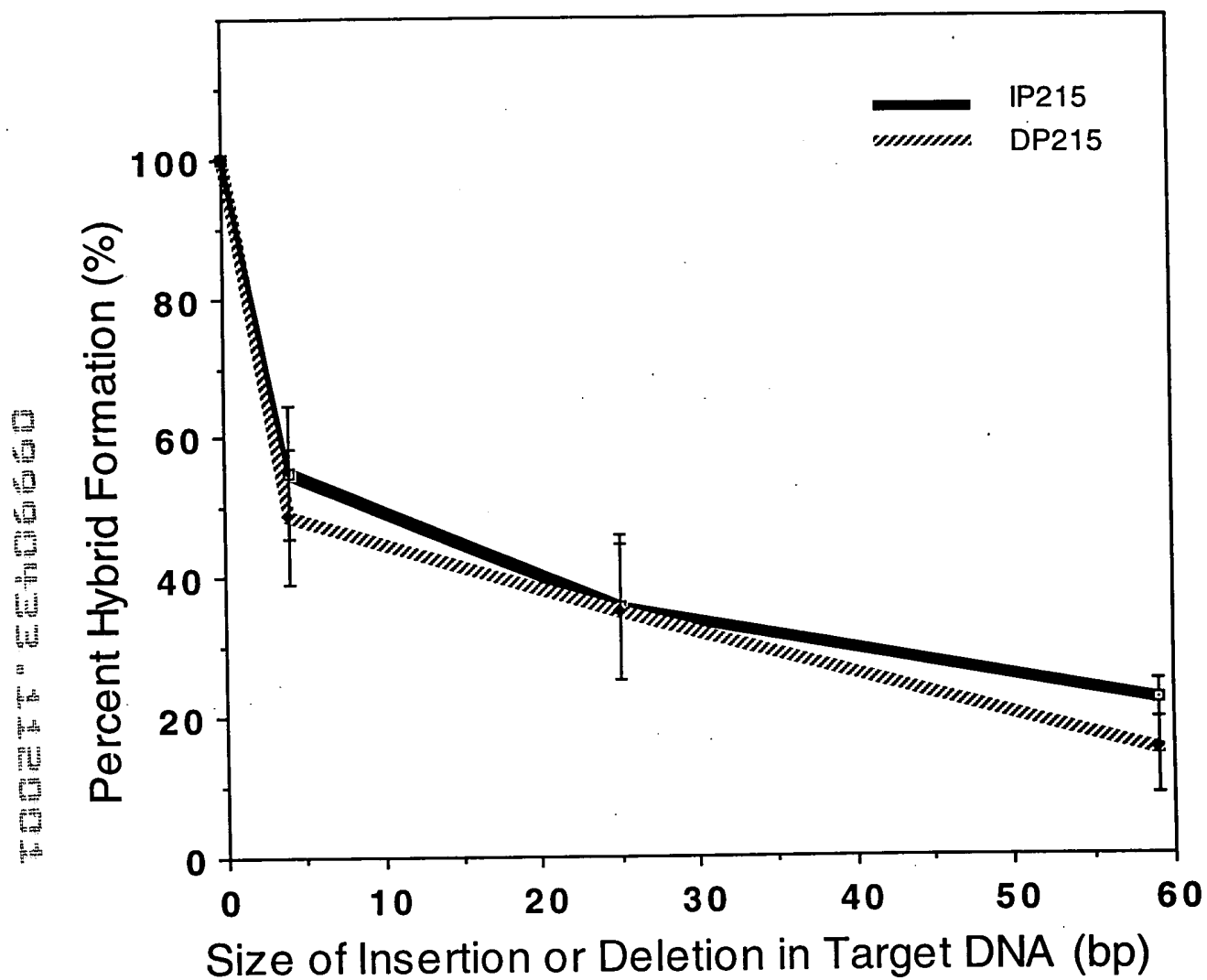


Figure 16

Figure15B

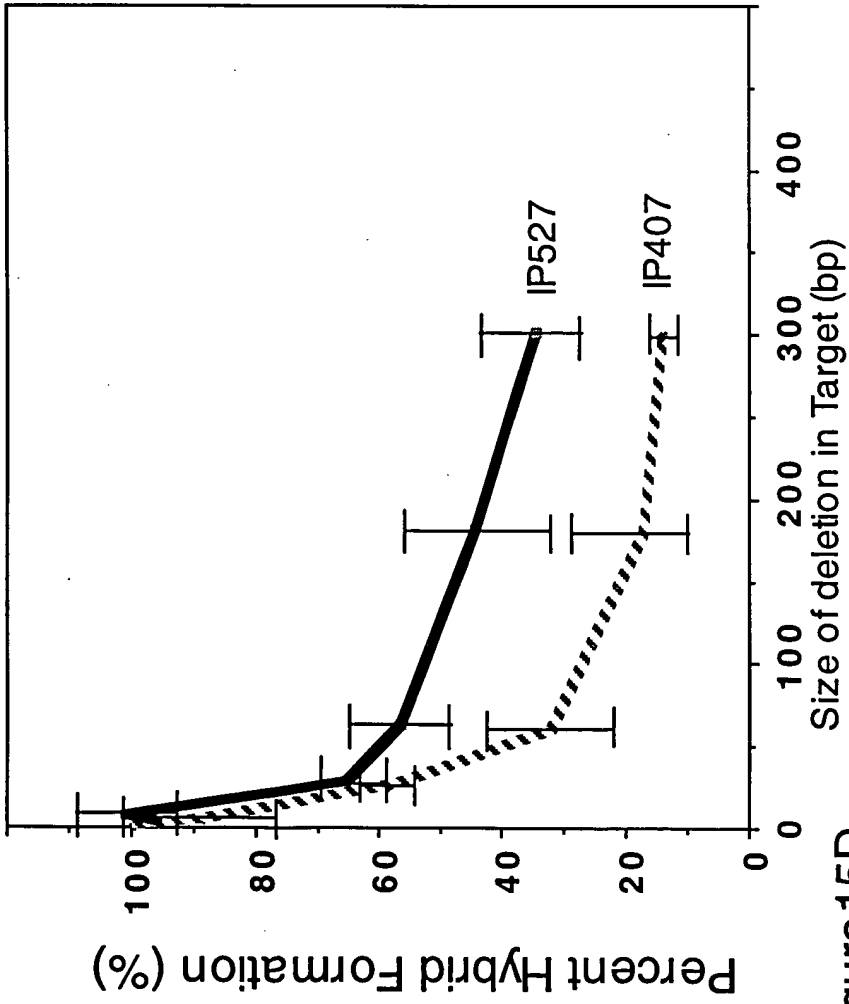


Figure15C

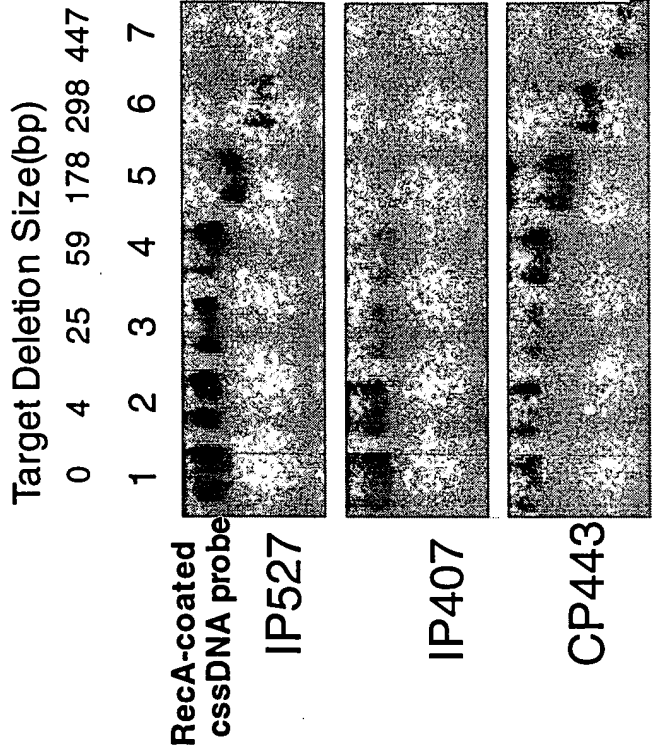


Figure15D

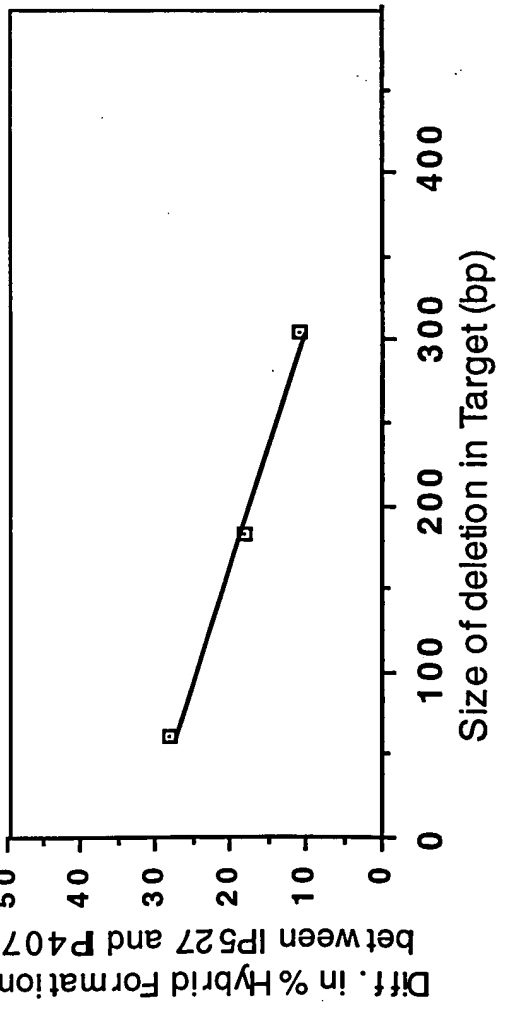


Figure 17A

Target

pRD.96Z

Excess probe

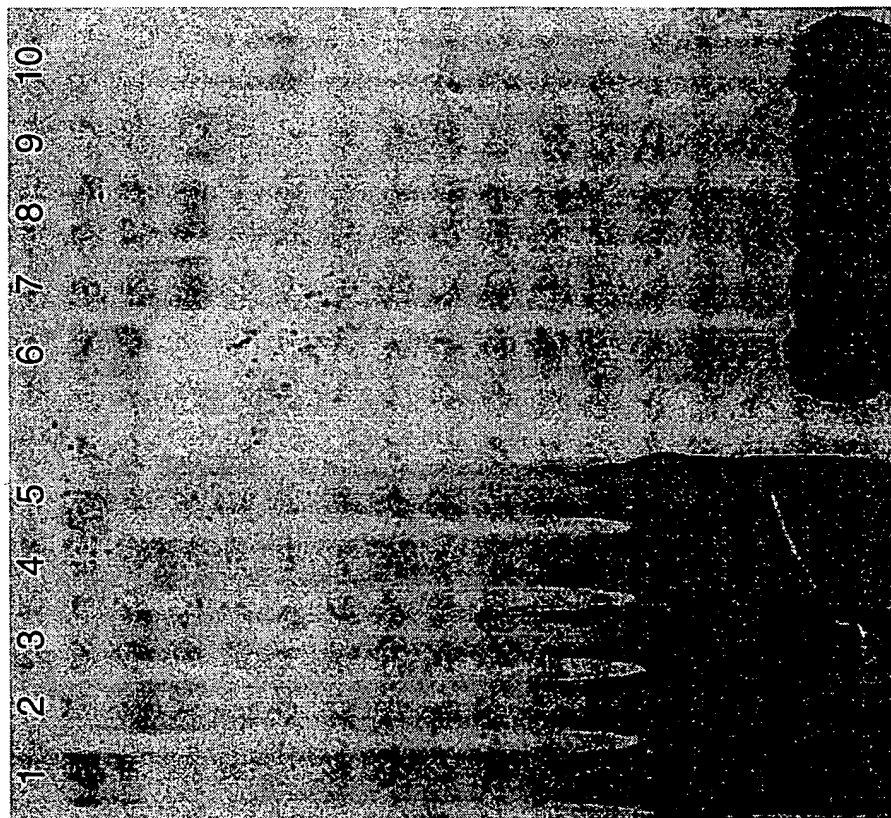


Figure 17B

TARGET DNA	AMT. HOMOL. (bp)	RELATIVE HYBRIDIZATION
pRD.0	1246	1.0
pRD.448	798	0.8
pRD.453	793	0.8
pRD.559	687	0.8
pRD.967	279	0.3

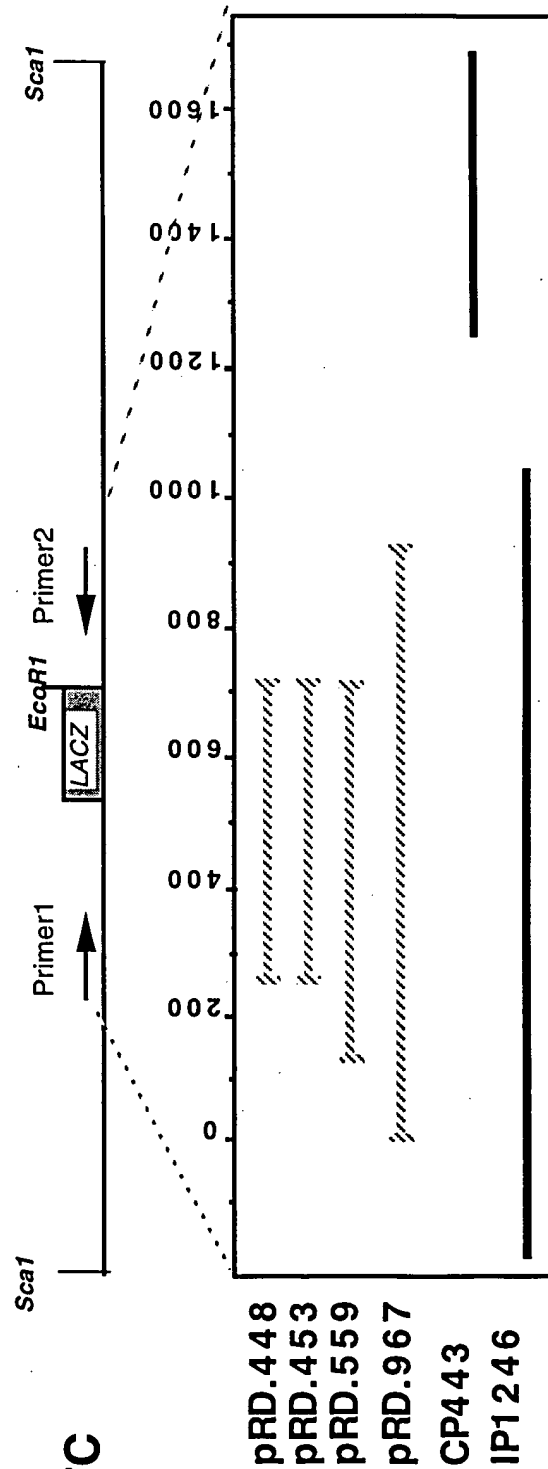


Figure 17C

Figure 18

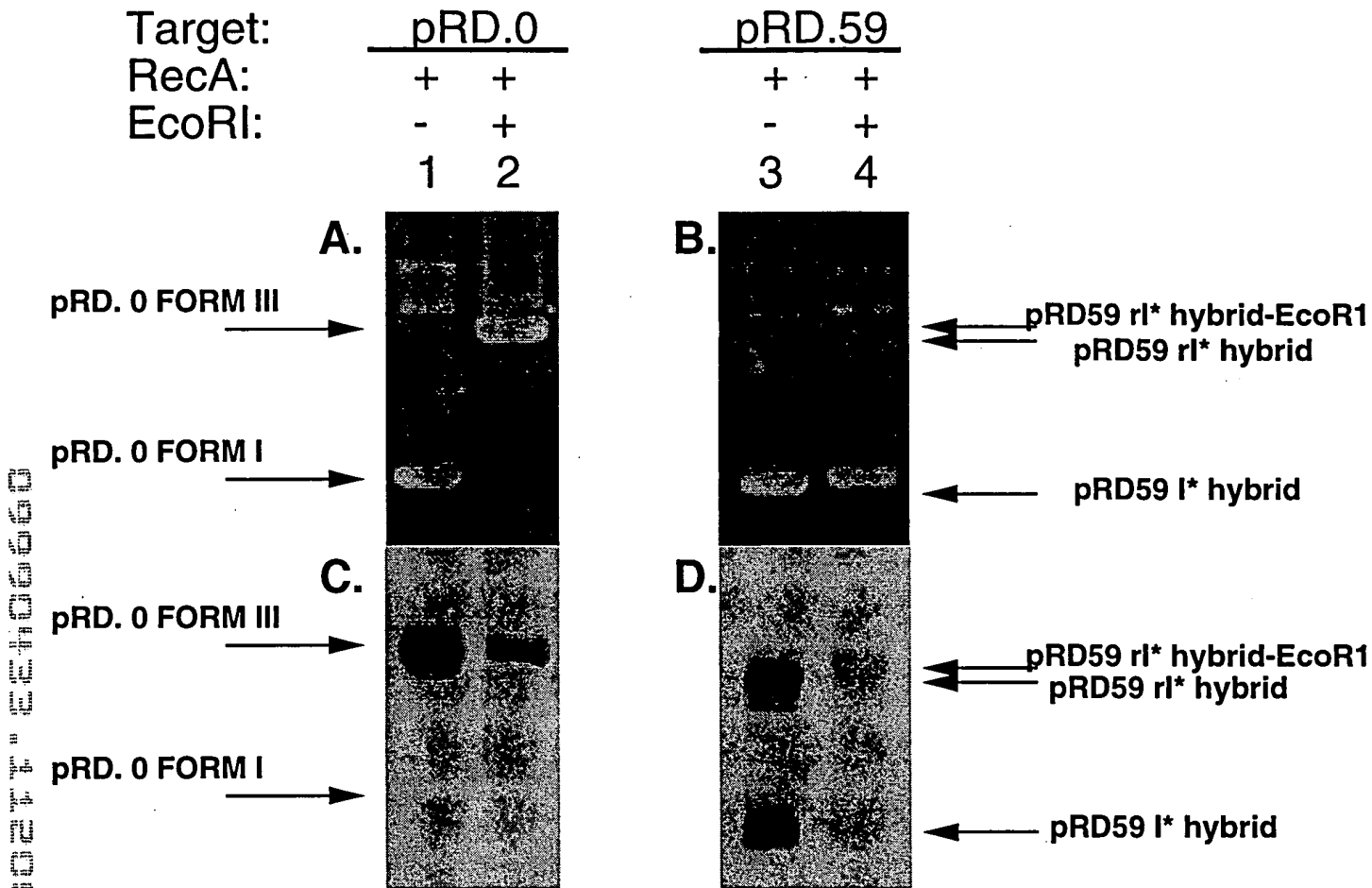
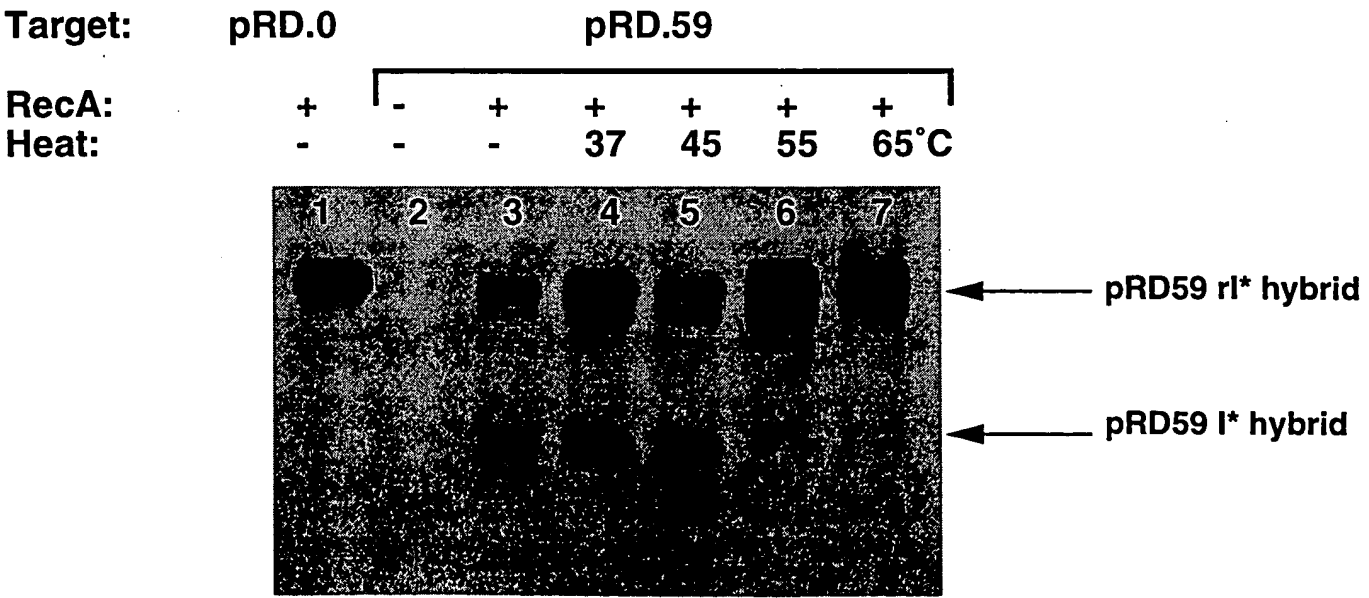
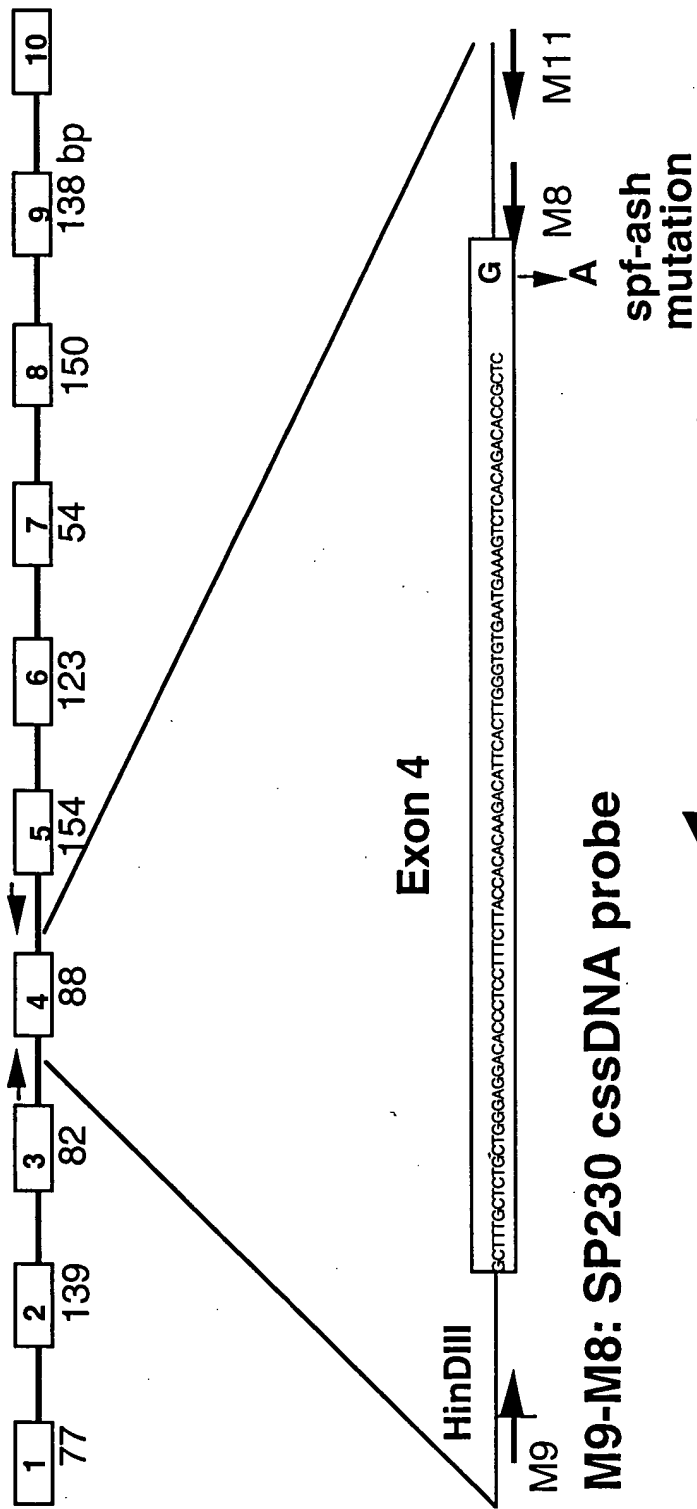


Figure 19



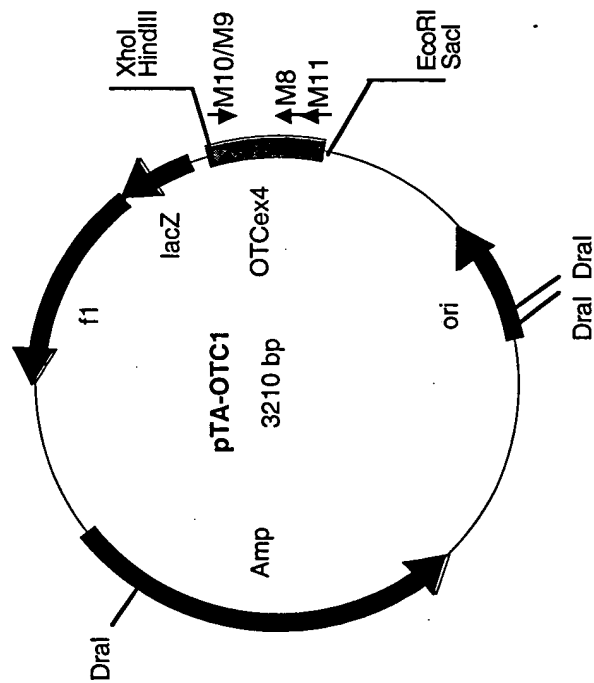
Mouse Ornithine Transcarbamylase Gene

Figure 20A



M9-M8: SP230 cssDNA probe

Figure 20B



$\frac{3}{8}$

Figure 22

Germline Transmission of EHR Corrected OTC⁺ Allele

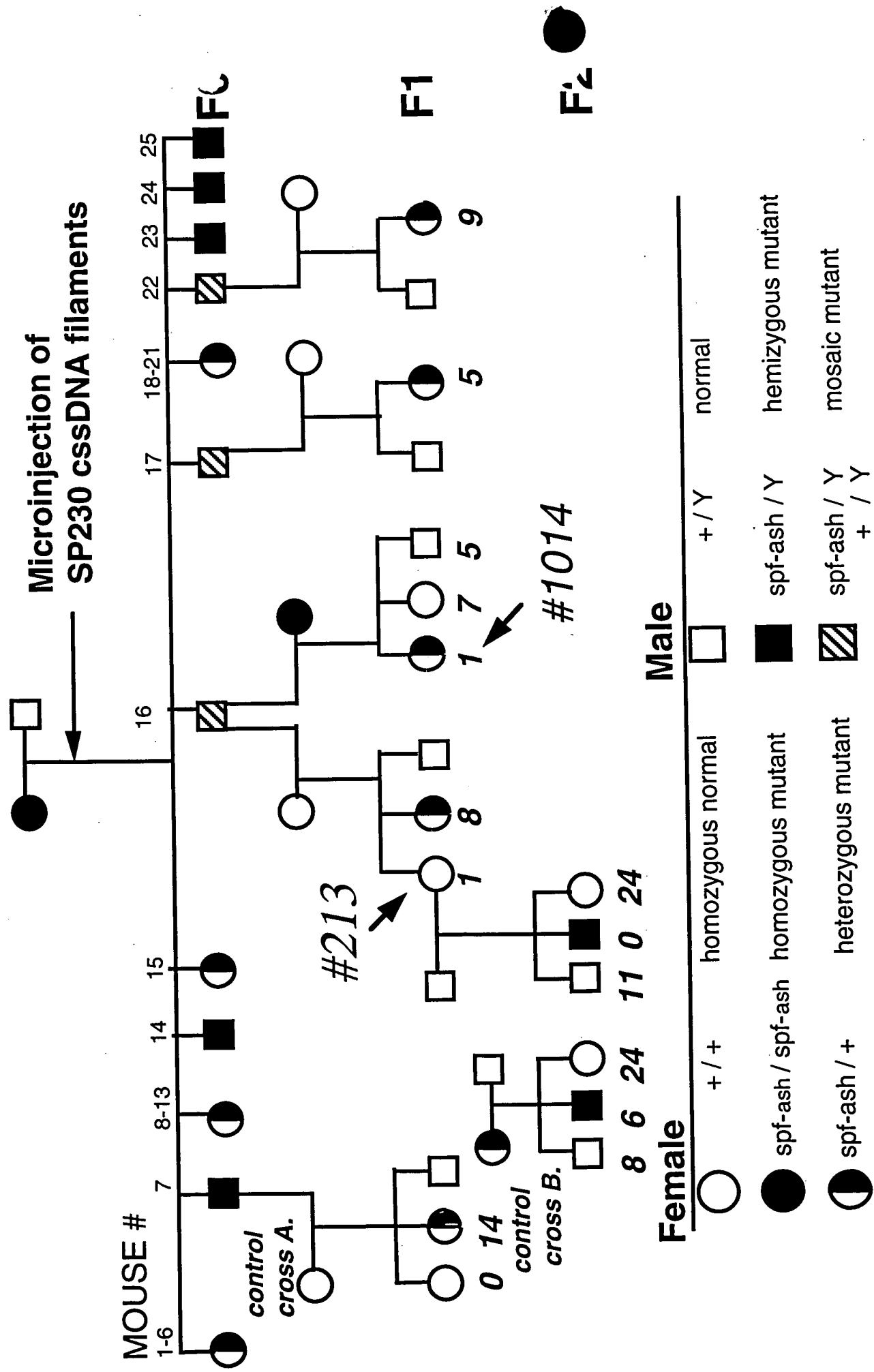


Figure 23 Germline Transmission of Corrected Allele of F0 Male #16



**Homozygous
spf-ash/spf-ash
female parent**

**Mutant F1
Male Pup1**



**Mutant F1
Male Pup2**



**Mutant F1
Female Pup3**



**Mutant F1
Male Pup5**



**Mutant F1
Female Pup7**



**Normal *
F1 Female
Pup1014**

